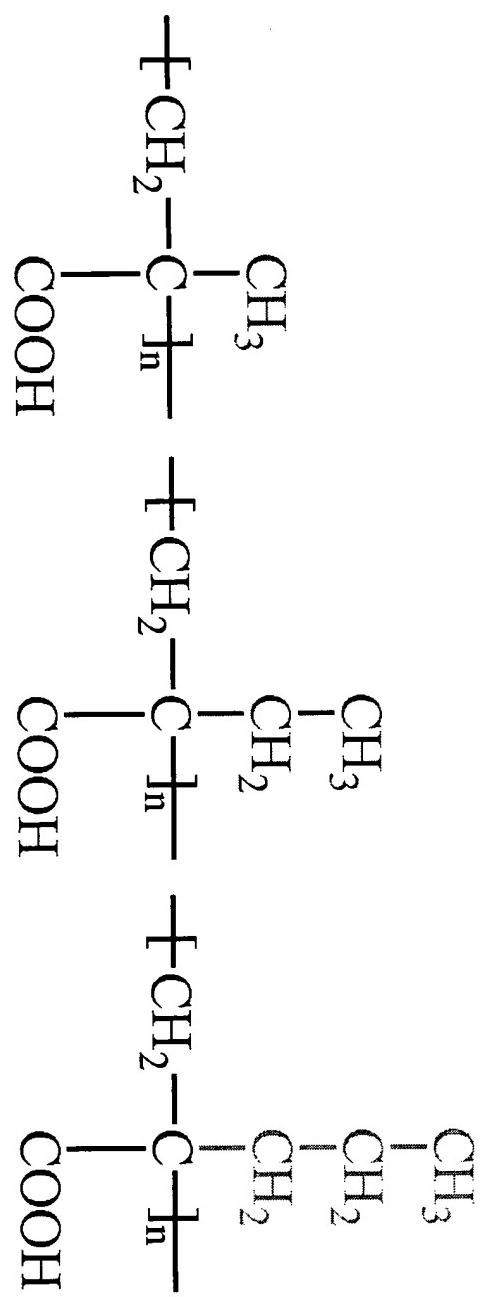


Synthetic pH-Sensitive Polymers



Poly(methylacrylic acid) (PMAA) Poly(ethylacrylic acid) (PEAA) Poly(propylacrylic acid) (PPAA)

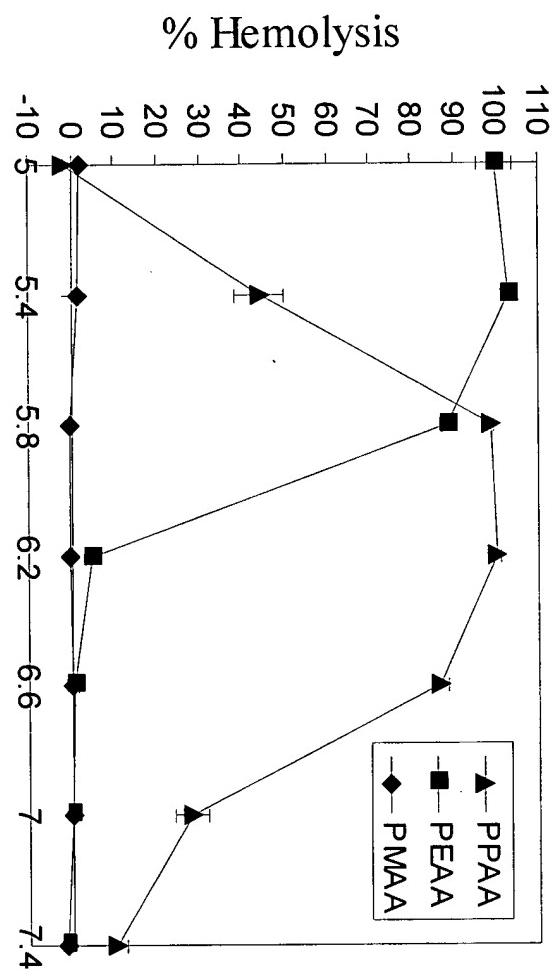
- PEAA and PPAA are pH-sensitive membrane-lytic polymers

FIGURE 1



pH-Sensitive Hemolysis*

* Hemolysis results obtained using 10 μ g/ml polymers



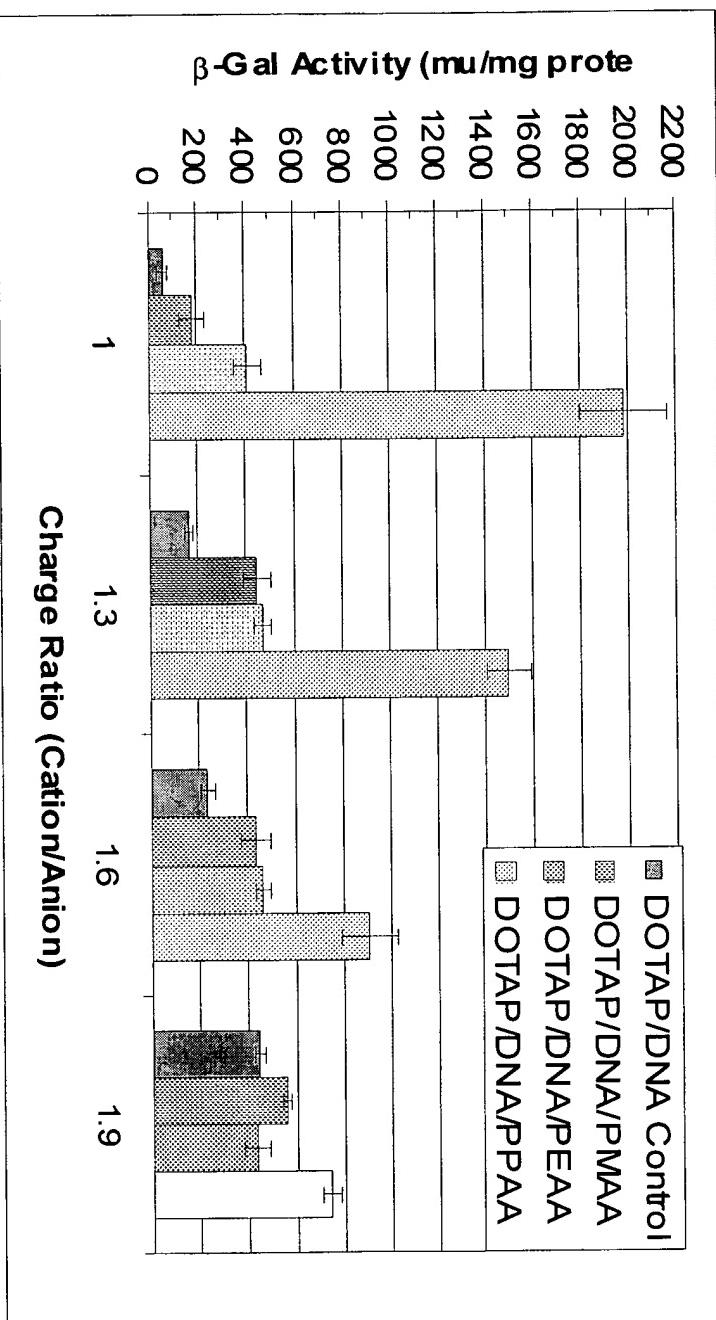
Conclusions:

- Both PEAA and PPAA show hemolytic activity within pH range for endosomal acidification
- Only PPAA shows activity at the higher pH range of early endosomes, which may allow for a greater fraction of intact macromolecules to escape from endosomes

FIGURE 2



Effect of Alkyl Group of Poly(alkylacrylic acid) on Transfection



Polymer MW's: PMAA (52kD), PEAA (43kD), PPAA (61kD)

FIGURE 3